same; his bowels not being free, directed sub. mur. hydr. grs. viij.—sup. tart. potassæ, pulv. jalapæ, āā ℈j. M. Evening. Medicine has not operated; directed a dose of sulphate of magnesia.

3*d.*—Cough and bronchial effusion very much diminished by the operation of the cathartic; pulse 68.

4*th.*—Feels very well; passed a good night; all his symptoms improved; pulse 74; can bear any degree of pressure upon the tumour without the least pain or difficulty of breathing.

10*th.*—Continues to mend, and is sanguine as to his recovery; pulsation of the tumour hardly perceptible, and to the touch very much diminished; cough less troublesome; left pulse 66; right, very feeble.

16*th.*—Ligature separated and came away last night; the tumour above the sternum, and pulsation entirely disappeared; cough and breathing better; voice nearly natural; pulse 66; now and then a very faint pulsation of the right radial artery; right hand a little swelled, and feels numb, and complains of the want of power to close it.

22*d.*—Wound just healed; weakness of the arm very considerable; fingers very thick and clumsy; arm swelled and pits upon pressure; no pulse in the right radial artery; breathing very easy; cough and expectoration much less; can sleep easy in any position, which he has not been able to do for many months.

26*th.*—Left town this morning for his residence in New Jersey.

New York, Dec. 8th, 1829, 25 *Park Place.*

Art. III. *Some Observations on the Plant that produces the Officinal Jalap, as established by its Culture during three successive Seasons.* By John Redman Coxe, M. D. Professor of Materia Medica and Pharmacy in the University of Pennsylvania. [With two plates.]

It is not my intention to take up much time in the consideration of the subject which this paper is intended to embrace; viz. the real character of the plant that affords us the officinal jalap. It will be seen, by referring to the American Dispensatory, that although it has been one of the most prominent and approved articles of the Materia Medica, for upwards of two centuries, the absolute character of the plant producing it has been involved in obscurity. Desirous of bringing it fully to light, I attempted repeatedly to obtain the living plant from its domestic source, but unfortunately was unsuccessful in my endeavours; until in the year 1827, I obtained, by the kind attention of Mr. Fontanges, a number of the plants in a growing state, which he had the goodness to procure from Xalapa. The following statement may be considered as a diary of the facts which have since come to my knowledge. During three years successively, the plants have grown with great luxuriance in my garden; and, with the exception of fully ripening their seeds, have abundantly repaid me for the anxious interest I felt respecting them.

On the 8th of June, 1827, I received the plants from Mr. Heyl, to whose care they had been consigned.

The shoots, eight or ten in number, I found to have suffered from the voyage. They resembled the *Convolvulus*, but of a sickly growth, about six to ten inches high, and with several small cordate leaves upon each stalk. Supposing an immediate transplantation might benefit them, I put out two or three of the bulbs or tubers into the open ground on the same day, and planted some others in pots, in the *same earth* in which they had reached me. All of these last unfortunately died: this I presume must have arisen from the earth being impregnated with salt water, and which was probably the cause of the primary unhealthy state of the whole number. It was fortunate therefore that I had placed some in the garden, where I soon had the pleasure of seeing them give out fresh and vigorous shoots, which grew rapidly, so that by the beginning of July, they began to wind around a string I had prepared for them. They continued to grow with increased vigour, the leaves enlarging as the stalk advanced; and by the beginning of September they had attained a height of about twelve feet, several buds beginning to put forth very slowly, and not opening in flower until the beginning of November. Indeed, owing to the frost, only one of them came to perfection; and this one was secured from the same fate with the elegant buds that were on the point of expanding, by cutting off a section of the plant and putting it into water in a warm room: from this flower the first drawing I had made was taken, having a beautiful lilac or carnation waxy transparent colour.

The leaf differs entirely from that given by Woodville in his Medical Botany; as does the whole appearance of the flower: but I have since found much diversity in the leaves, as may be seen in the engraving; yet although thus differing among themselves, they were *always* cordate. At each leaf two small buds appeared, and in a few instances three, on the uppermost branches or offsets, each on its own particular footstalk. The common *Convolvulus* or *Ipomœa* of our gardens, I found to have a diversity of buds, even up to five, arising from the same part of the plant as in the jalap, viz. from the angle formed by the leaf with the stem.

Excepting the leaves, the plant appeared scarcely more than a reddish-brown thread, about the size of a crow-quill, to the height of twelve or fourteen feet; from thence, at the junction of nearly every leaf, an offset originated, growing luxuriantly to the length of several feet: the whole length of the plant must have been twenty to twenty-five feet, the numerous offsets springing forth nearly the whole extent, and each in turn affording axillary offsets. There were probably about twenty buds of different sizes, of the most beautiful appearance, that were destroyed by the frost; the longest, by admeasurement on October 23d, including the peduncle and calyx, fully two inches. The leaves were throughout solitary and alternate, cordated, and from one to three inches long, including the footstalk. The stem, besides twining round its support from left to right, having a strong disposition to twist upon itself throughout.

The frost destroyed the flowers before even evincing a disposition to seed, and as the cold increased, being fearful of trusting the roots during winter, to the open air, I took them up on the 21st of November, and planted them in a pot in the house on the same day; keeping them in a warm room the whole winter, and slightly moistening the earth occasionally.

On the 12th of April, 1828, I found three small shoots beginning to appear, which by the 29th of the month were between two and three inches high; on which day I planted one out in the open air. On the 7th of May small cordate leaves began to appear; the slender reddish stem had commenced twining around an adjoining twig, and counting the convolutions, was now full five inches in height. By the 17th it had grown to fully twelve inches, the leaves augmenting in size and number.

June 1. Including the convolutions, it is now nearly four feet high, and by the 8th was nearly six inches higher, extremely vigorous, and beginning to display the appearance of small offsets from the upper leaves. In breaking off a leaf, I found a milky juice exude in small amount, and of little taste.

16th. It is now between six and seven feet high, and has about fifty vigorous leaves of a vivid green.

July 1st. Now upwards of eight feet high, with five or six vigorous offsets from the axillæ of the upper leaves, and fresh ones forming.

This plant continued to thrive vigorously, and probably reached the height of twenty feet. Several minute buds made their appearance; but not one came to perfection, either on this, or the others, which grew with equal luxuriance; so that I was completely disappointed in my expectation of becoming acquainted with the seeding of the plant, from its having had a start of growth many weeks beyond that of the preceding year. The frost coming on, I took up the pot in which it was planted, and preserved it in the house during the winter, the stem gradually dying down. In this state it continued, being occasionally slightly watered, until early in the month of April, 1829, when I took it up, and found it considerably enlarged, and left it exposed to the air for some days, during which time it became wrinkled and seemed drying into the corrugated form in which the imported root appears: I therefore replanted it, and placed it in the garden, and on the 18th of April I noticed it shooting from the earth. By the 25th, a small stem, about three inches long, was beginning to twine around an adjoining stick, and the same day a second shoot made its appearance. May 4th. A small cordate leaf appeared on the first stalk, now nearly a foot high. It continued rapidly to increase, and by the 27th of June it had numerous offsets from the junction of the upper leaves with the stem, being now about fifteen feet high; and on these offsets, fifteen or twenty buds seemed to be progressing, of different sizes, so that by comparing the statements of the preceding years, it will be found to have far advanced before them.

The storms we experienced on and about the 4th of July of this year, extinguished my anxious expectations, by beating off every bud then upon the plant, although many very vigorous fresh offsets put forth from the main stem, as it progressed in height. By the 20th of August, it was full twenty feet in height, but without the appearance of a new bud. Having given up all hopes of its efflorescence, I paid but little attention to it, but about the middle of September I was agreeably surprised at perceiving several small buds pushing forth, which, by the 20th of October, had greatly augmented, perhaps not less than one hundred, and some of the most forward being now nearly one inch and a half in length.

October 23d.—I measured one, and found it, including its footstalk, to be three inches long; and on this day, one of the flowers expanded, continued open all that night and the next day, and falling off on the 25th, when the seed-vessel, to which the pistillum continued attached, was of considerable size. Another flower opened on the 25th, and fell off the next day, leaving a seed-vessel of sufficient size to induce me to hope that seed might be perfected. After this, probably fifteen or twenty buds flowered very beautifully; and from one footstalk, in some places two buds were seen, in others, three.

All my expectations were however blasted, by the severe frost which came on about the middle of November, and completely destroyed every sign of life in the plant; which I was unable to remove into the house, from the complete intertwining of the offsets in every part, amongst themselves, and the adjoining plants. The pot of earth, moreover, in which were the tubers, was frozen throughout, and I of course expected they were killed; I took it however into the house, and allowed it to thaw gradually in a cool room—and in four or five days, with a heavy heart, I removed the earth, and found my tuber vigorous and healthy, increased greatly in size, nearly as large as an orange, and in every respect resembling in colour and appearance, a dark skinned potatoe. Numerous suckers proceeded from it, from which fine radicles arose, and three new tubers were formed of the size of nutmegs; several offsets were shooting towards the surface of the earth; all which, after procuring their delineation, I planted again in about a week, where they now remain for further elucidation.

The skin of the tuber is very thin, and the whole habitude of this interesting plant, below the surface, seems closely allied to the common potatoe. Dark as is the appearance of the dried tuber as used in medicine, when fresh, its internal aspect is as white as a potatoe, but soon is clouded by atmospheric exposure.

Twenty grains of the tuber, dried and powdered, were given to a healthy man; it produced two watery evacuations and some griping.

I have now given, as concisely as I could, all the particulars I have learned of this long disputed plant; which turns out to be an *Ipomœa* and not a *Convolvulus.* The difference indeed is trifling—but it is no small matter in a disputed point, to completely settle the ground of controversy. I had a drawing made of my first year's flower, and this year another; to this last, I was enabled to add the tubers and their offsets, so that nothing remains to be known respecting the plant, but the character and number of the seeds; this I hope to accomplish another season. The engraving accompanying this statement, is an intermixture of the two drawings above mentioned, in order to give a view of the diversity of the leaves, in the two cases.

For the description, I am indebted to my friend Mr. Nuttal, so well known for his extensive attainments in the science of botany. It might possibly have been more complete had he seen it in its state of perfection. I have been indebted to him for his remarks on the subject of the jalap, (vide Dispensatory,) before I had been so fortunate as to obtain the plant, as above detailed. The following is his description of it:—

IPOMŒA JALAPA.—*Root.* A roundish, somewhat pear-shaped tuber; externally blackish; internally white when recent—and warty;* sending out long fibres from its lower point;† and also from the upper root stalks produced, which appear to be a portion of a persisting succulent stem.

Stem. Round, (apparently,) herbaceous, of a bright brown colour,‡ and very much inclined to twist; and, as well as the whole plant, perfectly smooth.

Leaves. Heart-shaped, entire, smooth, conspicuously acuminated, and deeply sinuated at the base: the lower ones sometimes nearly hastate, or with diverging angular points: the under surface prominently veined: the footstalks often nearly the length of the lamina of the leaf, from the point of its insertion.

Peduncles. About the length of the petioles, bearing commonly *two*, more rarely *three* flowers.

Calyx. Without bracts, five-leaved, obtuse; two of the divisions external.

Corolla. Funnel-formed, wholly lilac purple, (and of a waxy semitransparency. C.)

Stamina. Five; anthers oblong, white; somewhat exserted.

Pistillum. Germ slender and attenuated into the style. (Observation on an imperfect flower. C.) *Stigma.* Capitate, simple.

Seed. As yet unknown.

I have endeavoured to obtain information, hitherto unsuccessfully, how far the assertion is correct, of the true jalap having been found native in Georgia and Florida—and hope that this communication may lead the physicians of those states to investigate the subject fully; the leading particulars of which they will find in the Dispensatory, in a letter from Dr. BARTON to the late Dr. DORSEY. The details I have here given, together with the delineation of the plant in all its parts, will enable them, I trust, to decide the question. If it be so, unquestionably a source of export is opened to those who may choose to pursue its cultivation, and render us at the same time no longer tributary to a foreign market. If, on the contrary, it should not be found to be a native, my own experience warrants the belief that it may readily be naturalized, even in latitudes far more northern. As far as my researches go, I am of opinion, that the plant is not a native; but that the *mechoacana* has been mistaken for it—for the character of the plant, as given by Persoon, by no means answers to that which I have now, for three years, successfully cultivated; and which, coming directly from its native soil near Xalapa, cannot be considered in any way ambiguous.

---

* This appears rather the result of desiccation—for when fresh taken from the earth, it is not more so than the potatoe. Mr. N. had the opportunity of seeing it only after it had been some time exposed to the air. C.

† This was the case in the tuber examined by Mr. N. but the engraving will show, that, as in the potatoe, there are many eyes from which these fibres are transmitted, often as thick as a quill, and from which, in various places, proceed the radicles that nourish the plant. C.

‡ Rather reddish when fresh—Mr. N. having the opportunity of only examining the dry stalk. C.

Mr. Nuttall writes to me "the root of the *Ipomœa*, supposed to be *I. Jalapa*, which you have introduced from Mexico, and which I received from Mr. Dick, was planted in a flower-pot, and plunged in the open soil. On the approach of last winter, the pot was taken up to be protected in the green-house; part of the root, however, had penetrated through the pot into the ground: this small portion withstood the severity of the season in Cambridge, (Mass.) and grew and spread with vigour during the present season, so that the plant may be considered perfectly hardy."

In the Periscope of the present number, department Materia Medica, will be found a notice of a supposed new species of jalap, by Mr. LADANOIS, but which will, we think, prove to be the *mechoacana*.

Explanation of the Plates.

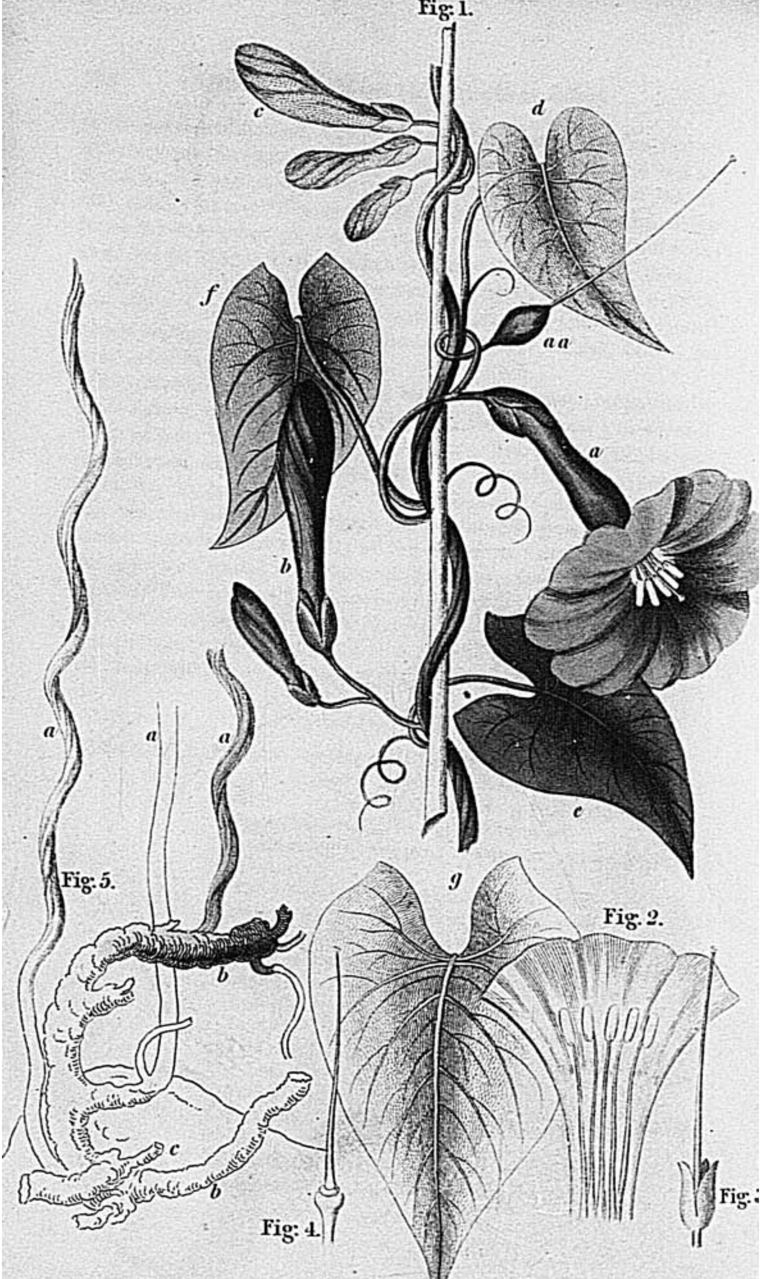
Plate I. Fig. 1. The plant winding round its support.
- *a.* A full expanded flower of the natural size.—Connected with it (*aa.*) is seen the germen and pistillum of another flower, the corolla of which had fallen off.
- *b.* A bud nearly on the point of expanding, with another less advanced.
- *c.* Three buds of different sizes—all proceeding from one common footstalk connected with the stem—each, however, having a separate one of its own.
- *d.* A leaf as it appeared on the plant of 1827—cordate—but varying much from the leaves in 1829—upper surface.
- *e.* Leaf of the plant in 1829—upper surface.
- *f.* Leaf of the plant in 1829—lower surface.
- *g.* Leaf separate—of largest size.

Fig. 2. The flower divided longitudinally, and opened, to show its five stamina.

Fig. 3. The pistillum and its capitated stigma, together with the calyx.

Fig. 4. The pistillum, showing its junction with the germen, in an unexpanded flower, after removing the calyx.

Plate I. Vol. V.



IPOMŒA JALAPA
VEL MACRORHIZA.

Plate 2. Vol.V

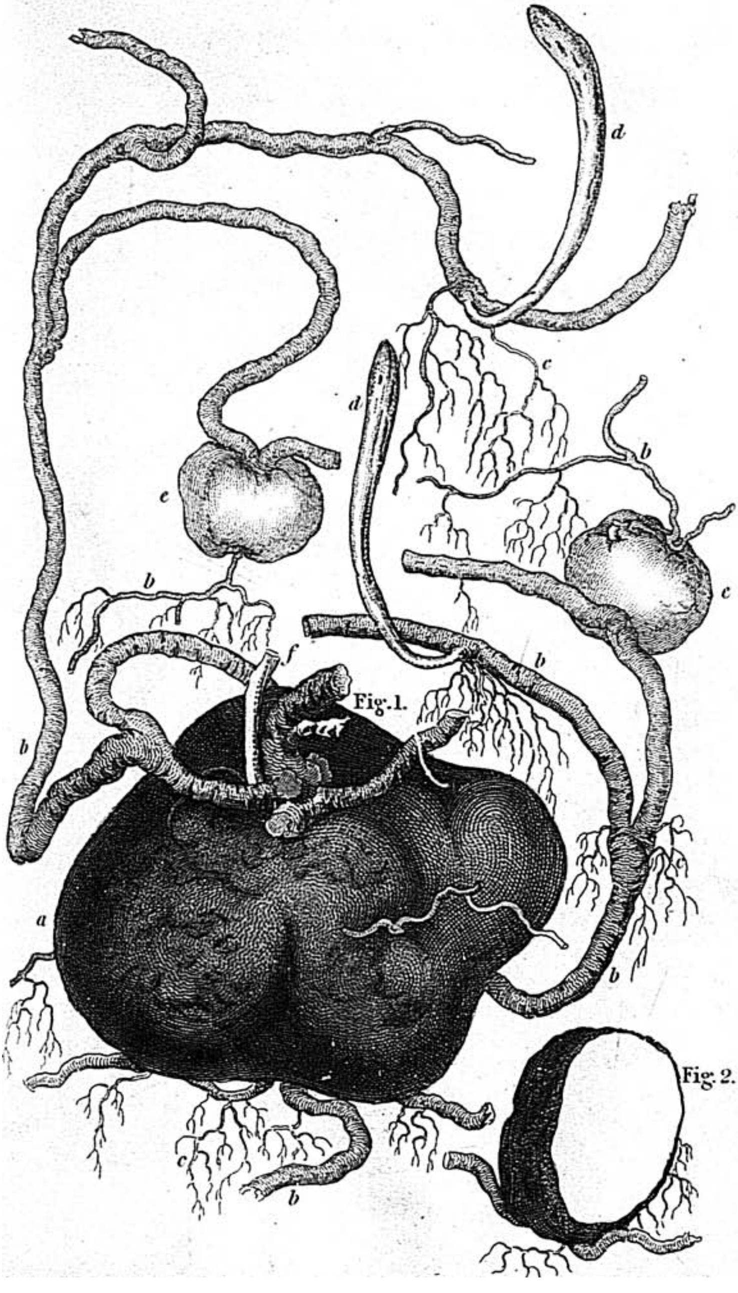


Fig. 1.

Fig. 2.

Fig. 5. The stem as it issues from the earth, showing its connexion with the stolones springing from the tuber.
- *a.* The stem.
- *b.* Stolones, or suckers.
- *c.* Tuber in outline.

Plate II. Fig. 1. *a.* Tuber—third year's growth—natural size.
- *b.* Stolones arising from the tuber.
- *c.* Radicles sent off from the stolones for the nourishment of the plant.
- *d.* Small shoots from the stolones, about to emerge from the earth.
- *e.* Small tubers from the stolones of this year's growth.
- *f.* Stem.

Fig. 2. A tuber cut in half, in order to show its internal white appearance, when fresh.

ART. IV. *Case of Successful Excision of the Cervix Uteri in a Scirrhous state.* By JOHN B. STRACHAN, M. D. Reported by THEOPHILUS FIELD GILLIAM, M. D. of Petersburg, Virginia.

MRS. M. H. ætat. 33, of the county of S. the mother of a fine son, had been treated since September, 1828, for menorrhagia, and the symptoms being more aggravated on the 2d of June, 1829, the reporter was requested, for the first time, to visit her. The hæmorrhage was extremely severe, attended with pains in the loins; pulse very feeble and frequent; countenance pale, sallow, and somewhat œdematous; great muscular debility, and emaciation of the body. The case appeared so critical from the frequent faintings, &c. that it was necessary to employ every remedy to stay the further loss of blood: sugar of lead, ipecacuanha, and opium, were freely used, with applications of ice water to the back, also the tampon, and astringent injections—the most useful of which was a strong decoction of red oak bark and alum. The visit was repeated on the 7th, and the discharges of blood had considerably lessened; but her situation continued so precarious as to forbid any special examination into the condition of the parts diseased. When the urgent symptoms had been removed, an alterative course of blue pills, with mineral and vegetable tonics, was recommended. Her health improved, and there were longer intervals between the attacks, which became milder, particularly after the application of a blister to the back. On the 20th of August she was visited for the third time, the distance, and other engagements, having rendered it very inconvenient to see her more